

WHAT IS CLAIMED IS:

- 1 1. A method for implementing a scoreboard, comprising:
2 associating an instruction with an index value;
3 associating the instruction with a scoreboard entry corresponding to the index value;
4 receiving an indication that a terminating event associated with the instruction has
5 occurred; and
6 invalidating the scoreboard entry.
- 1 2. The method of claim 1, wherein invalidating the scoreboard entry further comprises
2 invalidating the scoreboard entry after the indication of a terminating event is received.
- 1 3. The method of claim 1, wherein:
2 the instruction is a load instruction; and
3 associating the instruction with a scoreboard entry corresponding to the index value
4 further comprises associating the load instruction with a scoreboard entry
5 corresponding to the index value.
- 1 4. The method of claim 3, wherein:
2 receiving an indication that a terminating event associated with the instruction has
3 occurred further comprises receiving an indication that load data associated with
4 the load instruction has been retrieved.
- 1 5. The method of claim 1, wherein invalidating the scoreboard entry further comprises:
2 using the index to identify the scoreboard entry corresponding to the instruction; and
3 invalidating the scoreboard entry corresponding to the instruction.
- 1 6. The method of claim 1 further comprises:
2 forwarding the instruction and the index value to a load/store processing unit.
- 1 7. The method of claim 1 further comprises:
2 receiving the index value from a load/store processing unit.
- 1 8. The method of claim 1, wherein the scoreboard entry is one of a plurality of scoreboard
2 entries.

9. A computer system that provides indexed scoreboarding, comprising:
a main memory;
at least one processing unit coupled to the main memory;
a module, coupled to the main memory, that associates an instruction with an index value;
a module that associates the instruction with a scoreboard entry corresponding to the index value;
a module that is capable of receiving an indication that a terminating event associated with the instruction has occurred; and
a module that invalidates the scoreboard entry.

10. The computer system of claim 9, wherein the module that invalidates the scoreboard entry further comprises a module that invalidates the scoreboard entry after the indication of a terminating event is received.

11. The computer system of claim 9, wherein:
the module that associates an instruction with an index value further comprises a module that associates a load instruction with an index value; and
the module that associates the instruction with a scoreboard entry corresponding to the index value further comprises a module that associates the load instruction with a scoreboard entry corresponding to the index value.

12. The computer system of claim 9 further comprises:
a scoreboard coupled to the processor, the scoreboard having a plurality of scoreboard entry spaces.

13. The computer system of claim 11 wherein the module that is capable of receiving an indication that a terminating event associated with the instruction has occurred further comprises a module that is capable of receiving an indication that load data associated with the load instruction has been retrieved.

1 14. The computer system of claim 9, wherein the module that invalidates the scoreboard
2 entry further comprises:

3 a module that utilizes the index to identify the scoreboard entry corresponding to the
4 instruction; and
5 a module that invalidates the scoreboard entry corresponding to the instruction.

1 15. The computer system of claim 9 further comprises:

2 a module that forwards the instruction and the index value to a load/store processing unit.

1 16. The computer system of claim 9 further comprises:

2 a module that is capable of receiving the index value from a load/store processing unit.

1 17. A computer system that provides indexed scoreboarding, comprising:

2 a main memory;

3 at least one processing unit coupled to the main memory;

4 means, coupled to the main memory, for associating an instruction with an index value;

5 means for associating the instruction with a scoreboard entry corresponding to the index
6 value;

7 means for receiving an indication that a terminating event associated with the instruction
8 has occurred; and

9 means for invalidating the scoreboard entry.

1 18. The computer system of claim 17, further comprising:

2 means for forwarding the instruction and the index value to a load/store processing unit;

3 means for receiving the index value from the load/store processing unit; and

4 means for identifying the scoreboard entry based on the index value received from the
5 load/store processing unit; and

6 means for invalidating the scoreboard entry after the indication of a terminating event is
7 received.

- 1 19. The computer system of claim 17, further comprising:
2 a scoreboard having a plurality of scoreboard entry spaces.
- 1 20. The computer system of claim 17, wherein the instruction is a load instruction.

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